

WHAT IS CLAIMED IS:

1. A waste treatment apparatus comprising:

a disposal for mechanically reducing waste discharged  
5 from a kitchen;

a flow rate controlling tank for temporarily storing a  
mixture of the waste reduced by said disposal and kitchen  
waste water;

a solid-liquid separating device for separating the  
10 mixture supplied from the flow rate controlling tank into a  
solid component and a liquid component;

a composting device for converting the solid component  
separated by the solid-liquid separating device into a  
compost;

15 a precipitation-separation tank for precipitating fine  
particles in the liquid component supplied from the solid-  
liquid separating device;

a split-flow device for distributing the liquid component  
supplied from the precipitation-separation tank; and

20 a waste water treating device for biologically treating  
the liquid component supplied from the split-flow device to  
thereby produce treated water.

2. A waste treatment apparatus according to claim 1,

25 wherein

said waste water treating device comprises a tank  
containing microorganism carriers, and

said liquid component is introduced into the tank, subjected to a biological treatment in the tank, and then discharged out of said waste treatment apparatus.

5           3.    A waste treatment apparatus according to claim 2, wherein said waste water treating device has perforated containers containing said microorganism carriers.

10           4.    A waste treatment apparatus according to claim 3, wherein said waste water treating device comprises a plurality of said perforated containers.

15           5.    A waste treatment apparatus according to claim 3 ~~or~~ ~~4~~, wherein said perforated containers are in contact with one another.

20           6.    A waste treatment apparatus according to ~~any of~~ ~~claims 3 to 5~~, wherein said microorganism carriers comprise grains of a plurality of average grain sizes which are alternately stacked in said containers.

25           7.    A waste treatment apparatus according to ~~any of~~ ~~claims 3 to 5~~, wherein said microorganism carriers comprise grains of a plurality of average grain sizes which are concentrically packed in said containers.

4 8. A waste treatment apparatus according to ~~any of~~  
4 claims 6 ~~to 7~~, wherein, in said waste water treating  
apparatus, the ratio of diameters of said microorganism  
carriers having different average grain size is 1 : 1.5 ~ 2.5.

5 9. A waste treatment apparatus according to ~~any of~~  
claims 2 ~~to 8~~, wherein said microorganism carriers are wood  
chips.

10 10. A waste treatment apparatus according to ~~any of~~  
a claims 3 ~~to 9~~, wherein said containers are mesh baskets.

11. A waste treatment apparatus according to claim 10,  
wherein the mesh size (air gap) of said mesh baskets is 3 mm ~  
15 7 mm.

16 12. A waste treatment apparatus according to ~~any of~~  
h claims 3 ~~to 8~~, wherein said containers are unglazed  
containers.

20 13. A waste treatment apparatus according to ~~any of~~  
h claims 1 ~~to 12~~, wherein said split-flow device includes a  
cleaning device, and waste water from the cleaning device is  
returned to the flow rate controlling tank or the  
25 precipitation-separation tank.